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Please Hand to a Friend—He May Want
the Magazine and Premiums

The Daniels Nursery

Franc P. Daniels, Proprietor

Long Lake, Minnesota

Specialists in the production of UTILITY PLANTS, Fruit
Trees, Nut Trees, Berry Plants, Perennial Vegetable Plants.

Send for our catalog of Varieties Recommended
in This Folder.

Minnesota State Horticultural Society 1923

MORE THAN 3,000 MEMBERS

This circular is issued to assist in the dissemination of
horticultural information and to describe the work of the
society. You are cordially invited to become a member.

CONTENTS

Best varieties of fruits to plant in Minnesota
Best shrubs to plant to adorn your home
Best varieties of vegetables for your home garden
What to use in spraying fruit trees
All about the Society---its ideals and objects

\$1.10. YOU GET FOR \$1.10

The Minnesota Horticulturist for 12 months
Membership in Horticultural Society
Annual Report—paper bound—for 1922 while
the limited supply lasts
Two Plant or Seed Premiums (See Pages 3 and 4)
Use of Library

President—Frank H. Gibbs, Como Station, St. Paul.

Secretary—R. S. Mackintosh, University Farm, St. Paul.

Office and Library
Horticultural Building, University Farm,
St. Paul.

OBJECTS OF THE SOCIETY

This society, supported in part by the state, has for its work the securing and dissemination of knowledge pertaining to tree, fruit, flower, and vegetable growing, and related topics.

The society holds regular summer and winter meetings, at which fruits, vegetables and flowers are exhibited, papers and reports on horticultural topics are read, and the personal opinions of the members secured in the discussions which follow.

A number of Trial Stations in different parts of the state, operated by members, are making practical tests of things new and desirable. The reports made by the superintendents and the papers and addresses presented at the meeting of the society, with other information of value, are compiled by the secretary and published monthly in the *Minnesota Horticulturist*.

IDEALS

The Society believes in and is working toward the following ideals:

For every home—

A vegetable garden to supply the family.

A small fruit garden.

A small apple and plum orchard.

Plantings of trees, shrubs and flowers to make it attractive.

For every farm—

A shelter belt of deciduous and evergreen trees to protect the farmstead.

For every school—

Grounds adorned with trees, shrubs and flowers.

The study of gardening in the public schools for all boys and girls.

For Minnesota—

The suitable planting of trees and shrubs on all highways.

Public parks and playgrounds for every village and city.

The commercial production of vegetables, fruits, nursery stock, seeds and flowers.

The origination of better varieties of fruits by the planting of seeds.

The eradication of injurious insects and plant diseases.

MEMBERSHIP

Annual Members.—Any person may become a member of this society for the year 1923 by payment of the annual fee of \$1, which pays for the society monthly for a full year from the date of membership, selections of new fruits and all the other privileges of membership for the year.

All annual memberships expire the first day of the annual winter meeting.

Life Members.—The life membership fee is \$10, payable in two annual installments of \$5 each if preferred. A life member is entitled to all the privileges of an annual member and also, if desired, a file of the back reports, as complete as possible, some twenty volumes, constituting a very valuable horticultural library.

[Owing to the high cost of printing and binding all annual and life members must send ten cents additional for paper bound, or thirty cents for cloth bound report.]

THE SOCIETY LIBRARY

Contains about 3,000 volumes and is open to all, but especially to the members. Books are loaned to members for two weeks under certain simple restrictions.

PUBLICATIONS

The society issues a monthly magazine of thirty-two pages

THE MINNESOTA HORTICULTURIST (Samples free on application)

At the close of the year the twelve magazines are indexed and bound together, making the annual report of the society, and entitled,

"Trees, Fruits, Flowers, and Vegetables of Minnesota."

PRIZES OFFERED BY THE SOCIETY

1. **ONE THOUSAND DOLLARS** for a Seedling Apple Tree "as hardy and prolific as the Duchess," with fruit equal to "the Wealthy in size, quality and appearance, and that will keep as well as the Malinda."

2. **ONE HUNDRED DOLLARS** for a new plum. Fund contributed by J. H. Fiebing. Must be an attractive plum equal to Surprise in quality, at least one and one-half inches in diameter. Tree hardy, productive, an early and regular bearer.

PLANT AND SEED PREMIUMS, 1923

All members for 1923, old or new, making application before April 1, 1923, are entitled to select two lots of plant or seed premiums to be sent postpaid, except as noted.

Right of substitution is reserved in case the premiums selected cannot be furnished.

DIVISION I

Two lots may be selected from this division or one from this division and one from Division II.

1. Ten rooted cuttings of desirable house plants.
2. Ten rooted cuttings of chrysanthemums.
3. Six named varieties of gladioli bulbs.
4. Three named varieties of iris.
5. Two dahlia roots.
6. Two canna roots.
7. Four oxalis bulbs.
8. Six rooted plants of hardy perennials.
9. Four packets everlasting flower seeds.
10. One packet each of large flowing zinnias and petunias.

Premiums Nos. 11 to 18 inclusive are offered by the Vegetable Section, Division of Horticulture, University Farm.

11. Packet, Burbank tomatoes; early, high quality fruit, productive.
12. Packet, Brazillian Prickly tomato; a new novelty, Burbank.
13. Packet, Kitchenette Hubbard Squash; Hubbard quality, size average 5 pounds.
14. Packet, Delicious squash; should be used by those who want squash of best variety. Selected by C. H. Smith, Fari-bault.
15. Packet, Des Moines, (Table Queen) squash; the smallest squash.
16. Packet, Pickaninny sweet corn; early, sweet, black kernels.
17. Packet, Wonderberry; for preserves, jelly, or mock blueberry pie.
18. Packet, Winter melon; a watermelon of good quality, good keeper.

DIVISION II

Only one lot may be selected from this division. **Special.** All members sending in the names of new members at \$1 each may select one lot from this division for each new name.

New Fruits from the Minnesota State Fruit Breeding Farm.

The best list of premiums we have offered in years. Members receiving these new fruits are expected to report on their success or

PLANT AND SEED PREMIUMS, 1923—Concluded

failure sometime during the next few years. In the first three postal zones the plum trees will be sent by parcel post. A charge of 30 cents will be made for each lot of plums to pay for packing and postage. Be sure to send money with request. To give all an even chance the orders will be recorded as received. When the supply in any lot is exhausted substitutions will have to be made.

Plums

19. Two trees, any of the varieties in Group A.
20. Two trees, one from Group A and one from Group B.
21. Two trees, one from Group B and one from Group C.
22. Three trees, one from Group A and two from Group C.
23. Three trees, all different from Group C.

GROUP A

Monitor, Minn., No. 70, large, red, firm fleshed, quality fair, late August.

Elliot, Minn., No. 8, large, red, productive, quality good, Sept. 1.

Red Wing, Minn., No. 12, very large, freestone quality very good, August 15.

Underwood, Minn., No. 91, large, juicy, productive, quality very good, late July.

Winona, Minn., No. 30, medium large, round, yellow and red, quality of highest, Sept. 12.

Newport, Minn., No. 116, an ornamental with purple foliage.

GROUP B

Waconia, Minn., No. 10, large, red, conical fruit, quality good, August 15.

Tonka, Minn., No. 21, large, red, nearly freestone, heaviest producer, quality good, August 10.

Mound, Minn., No. 50, very large, dry meaty flesh, quality fair, August 25.

Goldenrod, Minn., No. 120, large, clear yellow, firm flesh, quality fair, August 25.

La Crescent, Minn., No. 109, very early, clear yellow, delicious quality, July 25.

Hennepin, Minn., No. 132, large, dark red, red flesh, very good especially for cooking, August 20.

Zumbra, dwarf tree, small fruits, very productive, a substitute for cherry. August 25.

Manitou, Minn., No. 7, an ornamental spring flowering shrub or small tree. A cross between a hardy almond and peach.

GROUP C

This group is made up of a number of promising unnamed seedlings.

Currants

NOTE—Currants and gooseberries cannot be sent west or north of Minnesota on account of plant quarantine regulations.

24. Four plants, new but unnamed varieties, our selection.

Gooseberries

25. Six plants, Como Minn., No. 43, medium large, very productive, green.
26. Six plants, Minn. No. 2, large, red, stands hot weather well.
27. Six plants, Minn., No. 80, medium size, very productive, good foliage.
28. Twelve plants, 6 of each of two varieties of seedlings, our selection.

Grapes

29. Three vines, improved seedlings of the Beta type.
30. One vine, hardy hybrids of good quality, the supply is limited so please give second choice in event all are exhausted.

VARIETIES OF VEGETABLES RECOMMENDED FOR MINNESOTA HOME GARDENS

Asparagus—Washington, Palmetto, Reading Giant.
Bush Beans, Wax—Wardwell, Pencil Pod, Golden Wax.
Bush Beans, Green—Bountiful, Refugee, Stringless Green Pod.
Pole Beans, Green—Kentucky Wonder.
Pole Beans, Shell—Horticultural.
Beans, Lima—Dwarf preferred, except in favored locations.
Beets—Detroit, Eclipse, Egyptian.
Cabbages, Early—Wakefield, Copenhagen.
Cabbages, Late—All Seasons, Danish Ball or Holland.
Carrots—Chantenay, Danvers Half Long.
Cauliflower—Erfurt, Snowball.
Celery, Early—Golden, White Plume.
Celery, Late—Winter Queen, Giant Pascal.
Celeriac—Erfurt.
Corn, Sweet—Golden Bantam, Crosby, Stowells Evergreen.
Cucumbers—Boston and Chicago Pickling, White Spine.
Egg Plant—New York Spineless, Black Beauty.
Endive—White and Green Curled.
Horse Radish.
Kale—Dwarf and Tall Curled Scotch.
Kohl-Rabi—Vienna.
Lettuce, Leaf—Grand Rapids, Black Seeded Simpson, Iceberg.
Lettuce, Head—Big Boston, Hanson.
Muskmelon—Gern, Osage, Irondequoit, American Beauty.
Onion—Red, Yellow and White Globe.
Onion Sets—Any color or kind.
Parsnip—Hollow Crown, Guernsey.
Parsley—Moss Curled.
Peas, Early—Alaska, Thomas Laxton, Marvel (Dwarf), Suttons
Excelsior.
Peas, Late—Telephone, Champion of England, Senator, Profusion.
Peppers—Bell, Ruby King, Cayenne.
Potatoes—Early Ohio, Irish Cobbler, Triumph, Burbank, Russet,
Green Mountain, Rural New-Yorker.
Pumpkins—Long or Round Pie.
Radish—Scarlet Globe, Icicle.
Radishes, Winter—Half-Long and Round Black Spanish.
Rhubarb—Victoria, Linnaeus.
Rutabaga—Purple Top, Yellow-Swede.
Salsify—Sandwich Island.
Spinach—Long Standing, Bloomsdale.
Squash, Summer—Scallop, Crookneck.
Squash, Winter—Hubbard, Delicious, Table Queen.
Swiss Chard—Lucullus.
Tomatoes, Early—Earliana, Bonny Best, Chalks Early Jewell.
Tomatoes, Late—Stone, Golden Queen (Yellow).
Turnips—Purple Top, Egg.
Watermelons—Kleckley Sweet, Dark Icing.

Food From The Garden

Fresh, palatable, full of vitamins, calories, minerals, and bulk.
All needed to keep the body active and in health and working at
maximum efficiency.

Save buying such food by growing it in the garden.

EAT MORE VEGETABLES—EAT MORE FRUITS

HARDY SHRUBS RECOMMENDED FOR MINNESOTA PLANTING

Common Name	Scientific Name
Thunberg's Barberry	Berberis Thunbergii
Siberian Pea Tree	Caragana arborescens
Silver Berry	Eleagnus argenta
Strawberry Tree	Euonymus Europaeus
Sea Buckthorn	Hippophae rhamnoides
Large Flowered Hydrangea	Hydrangea paniculata grandiflora
Hydrangea, Hills of Snow	Hydrangea arborescens grandiflora
Tartarian Honeysuckle	Lonicera Tartarica
Mock Orange	Philadelphus coronarius
Golden Mock Orange	Philadelphus coronarius var. aurea
Shrubby Cinquefoil	Potentilla fruticosa
Missouri Flowering Currant	Ribes aureum
Rose Acacia	Robinia hispida
Japanese Rose	Rosa rugosa
Golden Elder	Sambucus nigra var. aurea
Buffalo Berry	Shepherdia argenta
Bumalda Spiraea	Spiraea Bumalda
Anthony Waterer Spiraea	Spiraea Bumalda var.
Billard's Spiraea	Spiraea Billardii
Douglas' Spiraea	Spiraea Douglassi
Japanese Spiraea	Spiraea Japonica
Meadow Sweet Spiraea	Spiraea salicifolia
Van Houttei's Spiraea	Spiraea Van Houttei
Persian Lilac	Syringa Persica
Common Lilac	Syringa vulgaris
Japanese Lilac	Syringa Japonica
Snowball	Viburnum Opulus var. sterile
Wayfaring Tree	Viburnum lantana

SHRUBS NATIVE TO THE STATE DESIRABLE FOR PLANTING

New Jersey Tea	Ceanothus Americanus
Red Osier Dogwood	Cornus stolonifera
Leatherwood (Wickopy)	Dirca palustris
Wahoo	Euonymus atropurpureus
Ninebark	Physocarpus opulifolia
Staghorn Sumac	Rhus Typhina
Smooth Sumac	Rhus Glabra
Dwarf Sumac	Rhus copalina
Wild Rose (tall)	Rosa lucida
Wild Rose (dwarf)	Rosa blanda
Common Elder	Sambucus Canadensis
Snowberry	Symphoricarpus racemosus
Coral Berry, Indian Currant	Symphoricarpus vulgaris
Sheepberry	Viburnum lentago
Black Haw	Viburnum dentatum
Dockmackie	Viburnum acerifolium
Highbush Cranberry	Viburnum opulus
Prickly Ash	Xantoxylum Americanum

HARDY PERENNIAL VINES

Ampelopsis Engelmani or American Ivy, Wild Grape, Beta Grape, Lycium Chinense or Matrimony Vine, Bitter Sweet.

HARDY HEDGE PLANTS

Buckthorn, Alpine Currant, Cotoneaster acutifolia, Thunberg's Barberry, Dogwood, Willow.

SIX HARDY HERBACEOUS PERENNIALS

Phlox, Peony, Larkspur, Bleeding Heart, Lily of the Valley, Day Lily, Iris.

SPRAY PROGRAM FOR MINNESOTA

The spray mixture for apples and plums best suited to Minnesota conditions is made by adding 5 quarts of liquid commercial lime-sulphur and 1½ pounds of powdered arsenate of lead to 50 gallons of water. Spraying should always be done under high pressure, 200 pounds or more is better than a lower pressure. Cover every tree thoroughly, and above all be sure to do the spraying at the proper time, as a delay of a few days will greatly reduce the effectiveness of the work.

APPLES

First Spray: When first flower buds show pink.

Pests controlled—Early stages of leaf eating caterpillars, curculio, and scab.

Second Spray: As soon as petals drop from flowers and before calyx cup closes.

Pests controlled—Codling moth caterpillars and those listed under first spray.

Third Spray: Last week of June or first week of July.

Pests controlled—Scab, apple maggot (railroad worm) and leaf eating insects.

Fourth Spray: About July 20.

Pests controlled—Scab, apple maggot (railroad worm), plum curculio and leaf eating insects.

PLUMS

First Spray: Just before blossoms open.

Pests controlled—Curculios, plum pocket, blossom blight, twig blight.

Second Spray: When plums are the size of small peas.

Pests controlled—Curculios and brown rot.

Third Spray: About July 1.

Pests controlled—Curculios and brown rot.

Fourth Spray: When fruit first starts to color.

Pests controlled—Curculios and brown rot.

Special for Plant Lice: If plant lice are noticed on apples, plums or other plants in early spring, spray with nicotine sulfate, ½ pint of 40 per cent nicotine sulfate and 2 or 3 pounds of soap in 50 gallons of water, as soon as discovered. The first lice usually appear just as the buds are bursting. If very numerous when applying regular sprays, nicotine sulfate may be added to regular mixtures. It is more effective when used alone.

CURRENTS AND GOOSEBERRIES

Spray: Just before buds open. Lime sulphur, one part to nine parts of water. This is a strong solution which is used to destroy the eggs of plant lice, and must not be used after leaves are out.

Pest controlled: Plant lice.

Currant Worm

Spray: Use arsenate of lead at the rate of 1½ pounds in 50 gallons of water and 4-5-50 Bordeaux mixture as soon as caterpillars are seen. Look for them soon after the leaves are out. If the second brood comes out when the fruit is nearly mature it is safer to use hellebore. May be dusted on leaves in early morning.

Currant Borer

Prune out infested canes before June 1, and burn. Borers usually attack the canes that are two or more years old. It is well to remember in pruning that most of the fruit is borne on the canes that are two years old or older. Do not prune out all old canes each season.

SLOGAN—Spray Every Fruit Tree in 1923

FRUIT LIST FOR MINNESOTA

Revised and adopted by the Minnesota State Horticultural Society, December 7, 1922.

Varieties arranged approximately in order of ripening.

APPLES

Explanation of characters: C, commercial; HO, Home Orchard;
*, Leading variety; ?, Favorable locations only; T, Trial.

	Fruit Districts (See Map of State)					
	1	2	3	4	5	6
Yellow Transparent.....	HO	HO	HO	HO	HO	
Blush Calville.....					HO	HO
Charlamoff.....	HO	HO	HO	HO	HO	
Oldenberg (Duchess).....	C*	C*	C*	C*	C	HO
Iowa Beauty.....	HO	HO	HO	HO	HO	
Okabena.....	HO	HO	HO	HO	HO	
University.....	HO	HO	HO			
Anisim.....	HO	HO	C	C	HO	
Wolf River.....	HO	HO				
Superb.....	HO	HO	HO			
Brett.....	HO	HO	HO	HO	HO	
Hibernal.....		HO	HO	C	C	HO
Pattens Greening.....	C*	C*	C*	C*	C	HO
Wealthy.....	C*	C*	C*	C*	HO	
Eastman.....	HO	HO	HO	HO	HO	
McIntosh.....	C?					
Grimes.....	HO					
Jonathan.....	HO					
Fameuse.....	HO					
King David.....	HO					
Delicious.....	HO					
Milwaukee.....	HO	HO	HO	HO		
Windsor Chief.....	HO		HO	HO		
Salome.....	HO	HO	HO			
Northwestern Greening.....	C*	C?	C?			
Malinda.....	HO	HO	HO	HO	HO	

Varieties For Trial

Folwell (Minn. No. 237), Red Wing, Minnehaha (Minn. No. 300), Red Warrior, Wedge (Minn. No. 207), Erickson, Perkins, except Districts 4, 5 and 6, Haralson (Minn. No. 90.)

CRAB APPLES, (All Districts)

Early Strawberry, Whitney (Except No. 6), Florence, Dartt, Transcendent, Success, Hyslop, Virginia, Faribault.

STRAWBERRIES (Protect by mulching)

Perfect flowers: (June Bearing) Senator Dunlap, Premier, Chaska (Minn. No. 801), Nokomis (Minn. No. 489), Minnehaha (Minn. No. 935).

Imperfect flowers: Easypicker (Minn. 775).

Everbearing: (all perfect flowers) Progressive, Superb, Deep-haven (Minn. No. 41). Duluth (Minn. No. 1017).

ORNAMENTAL FRUITING SHRUBS (All districts)

Dwarf Juneberry, Sand Cherry, Buffalo Berry, High Bush Cranberry.

NUT FRUITS (All districts)

Shellbark Hickory, Black Walnut, Butternut.

FRUIT LIST—continued

PLUMS AND HYBRID PLUMS

Explanation of characters: *, Leading variety; ?, Favorable locations only; T, Trial.

	1	2	3	4	5	6
Opata.....	*	*	*	*	*?	T
Underwood (Minn. No. 91)...	*	*	*	*	T	
Assiniboine.....					*	*
Wolf (Freestone).....	*	*	*	*	*	*
Sapa.....	*	*	*	*	T	
Tonka (Minn. No. 21).....	*	*	*	T	T	
Compass.....					*	*
Wyant.....	*	*	*	*	*	*
Waneta.....	*	*	*	*	*?	T
Stella.....	*	*		*	T	
Loring.....	*	*	T			
Red Wing (Minn. No. 12)....	*	*	*	T	T	
Zumbra.....	*	*	*	*	*?	T
Mound.....	*	*	*	T	T	T?
Goldenrod (Minn. No. 120)...	*	*	*	*	T	T
Monitor (Minn. No. 70).....	*	*	*	T	T	
Terry.....	*	*	*	*	*	*
De Sota.....	*	*	*	*		
Elliot (Minn. No. 8).....	*	*	*	*	*?	
Anoka (Minn. No. 118).....	*	*	*	T	T?	
Winona (Minn. No. 30).....	*	*	*	T	T	

RASPBERRIES AND BLACKBERRIES

Explanation of characters: Same as for grapes.

Raspberries	1	2	3	4	5	6
King (Red).....	*	*?	COV	COV	COV	COV
Cuthbert (Red).....	*	COV	COV	COV	COV	COV
Herbert (Red).....	*	*	*?	COV	COV	COV
Sunbeam (Red).....				*	*	*
Ohta (Red).....				*?	*?	COV
Latham (Red).....	*	*	*	*?	*?	COV
Columbia (Purple).....	COV	COV	COV	COV	COV	COV
Cumberland (Black).....	COV	COV	COV	COV	COV	COV
Plum Farmer (Black).....	COV	COV	COV	COV	COV	COV
Gregg (Black).....	COV	COV	COV	COV	COV	COV
Blackberries						
Eldorado.....	COV	COV	COV	COV	COV	COV
Ancient Briton.....	COV	COV	COV	COV	COV	COV
Snyder.....	COV	COV	COV	COV	COV	COV

CURRANTS (All districts, no protection required)

Red: Pomona, Red Cross, Perfection, Long Bunch Holland Wilder.

Black: Black Naples.

White: White Grape.

GOOSEBERRIES (All districts, no protection required)

Champion; Carrie*, Como (Minn. No. 43), Pearl,⁵ Downing.

FRUIT LIST—continued

GRAPES

Explanation of characters: *, Leading variety; cov, covering or protection required; ?, Favorable locations only.

	1	2	3	4	5	6
Campbells Early.....	*	COV	COV	COV	COV	
Moore's Early.....	*	COV	COV	COV	COV	
Worden.....	*	COV	COV	COV	COV	
Alpha.....	*	*	*	*	*	*?
Beta.....	*	*	*	*	*	*?
Hungarian.....	*	*	*	*	*	*?
Brighton.....	*	COV	COV	COV	COV?	
Delaware.....	*	COV	COV	COV		
Diamond.....	*	COV	COV	COV?		
Concord.....	*	COV	COV	COV?		
Niagara.....	*	COV	COV	COV		
Agawam.....	*	COV	COV			



Minnesota Fruit Districts

Tear off on this line and mail to the Secretary, University Farm, St. Paul, Minn.

APPLICATION BLANK

Please enroll me a member of the
Minnesota State Horticultural Society.

NAME

ADDRESS—In full—Write Plainly.

I enclose the annual membership fee of \$1 and _____ cents for annual
report bound in paper.

I desire the premiums listed below and enclose 30c extra for packing
and mailing the premiums requiring the extra amount.

Date _____ 1923

You are invited and urged to join the Minnesota State Horticultural Society, University Farm, St. Paul, Minn.

The annual membership fee is \$1. It entitles you to receive each month—

The Minnesota Horticulturist.

Each issue is full of the best information obtainable on one or more phases of horticultural work, orcharding, small fruit growing, vegetable gardening, spraying, flower growing, landscape gardening.

The monthly magazines are bound together at the end of the year to form the annual report for that year, called—

Trees, Fruits, Flowers, and Vegetables of Minnesota.

Members paying the annual membership fee before April 1, 1923, of the current year may select two plant premiums for that year. Many of these premiums are new varieties of fruits from the Minnesota State Fruit Breeding Farm, sent out for trial. Some of the varieties already sent out are proving so valuable that they are in great demand. Some of newer varieties may be more valuable but further testing is necessary.

PLEASE NOTE: The plum tree premiums, numbers 19 to 23 inclusive, can be sent more cheaply by parcel post. We are asking those living within the third postal zones to send 30c extra so that the premiums can be sent the cheaper way. To those living outside these zones the trees will be sent by express collect.